Construct, Conduct & Comprehend Physics Experiments

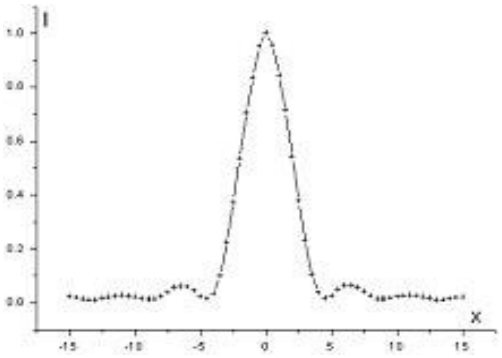
LEOI-30A Diffraction Intensity Measurement System

- *Stable performance with easy operation*
- *Compact semiconductor laser*
- *CCD option*
- *Complete system*

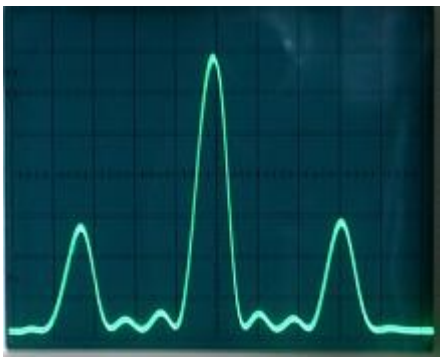
This apparatus is designed to quantitatively investigate diffraction and interference effects of single-slit, multi-slit, and single-wire. There are two options of the photo-receiving device, i.e. a photo-cell with amplifier (option 1) for manual data acquisition, and a linear CCD (option 2) for real-time data display on an oscilloscope.

Parts & Specifications

Optical Rail		length: 1.0 m
Semiconductor Laser		3.0 mW @650 nm
Diffraction Element	Single-Slit	slit width: 0.07 mm, 0.10 mm, and 0.12 mm
	Single-Wire	diameter: 0.10 mm and 0.12 mm
	Double-Slit	slit width 0.02 mm , central spacing 0.04 mm
	Double-Slit	slit width 0.07 mm , central spacing 0.14 mm
	Double-Slit	slit width 0.07 mm , central spacing 0.21 mm
	Double-Slit	slit width 0.07 mm , central spacing 0.28 mm
	Triple-Slit	slit width 0.02 mm , central spacing 0.04 mm
	Quadruple-Slit	slit width 0.02 mm , central spacing 0.04 mm
	Pentuple-Slit	slit width 0.02 mm , central spacing 0.04 mm
Photocell Detector (Option 1)		With 0.1 mm reading ruler & amplifier, connected to galvanometer
CCD (Option 2)		pixel number: 2700; size: 11×11 μm; spectral range: 0.3~0.9 μm
		with synchronization/signal ports, connected to an oscilloscope



Data acquired and plotted manually



Graph observed on oscilloscope

Note: above product information is subject to change without notice.

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